

WHAT IS CLAIMED IS

1. A cold cathode fluorescent flat lamp, comprising:

an enclosure chamber sealed by two reciprocally parallel plates of glass and containing a gas therein;

5 an anode and a cathode disposed in said enclosure chamber, wherein said cathode is parallel to said anode;

an auxiliary anode disposed between said anode and said cathode and being parallel to said cathode, wherein said auxiliary anode is attached to a surface of either said plates of glass; and

10 a printed circuit board for providing a voltage for said anode and said cathode.

2. The cold cathode fluorescent flat lamp according to claim 1 wherein said anode is made of nickel.

15 3. The cold cathode fluorescent flat lamp according to claim 1 wherein said cathode is made of nickel.

4. The cold cathode fluorescent flat lamp according to claim 1 wherein said gas is selected from a group consisting of inert gas, mercury gas, and a mixing gas thereof.

20 5. The cold cathode fluorescent flat lamp according to claim 4 wherein said inert gas is selected from a group consisting of helium gas, neon gas, argon gas, krypton gas, xenon gas, and a mixing gas thereof.

6. The cold cathode fluorescent flat lamp according to claim 5 wherein a pressure of gas contained in said enclosure chamber is ranged from 3 to 200 torr.

25 7. The cold cathode fluorescent flat lamp according to claim 1 wherein said auxiliary anode is made of a material selected from a group consisting of copper, nickel, and aluminum.

8. The cold cathode fluorescent flat lamp according to claim 1, further comprising a fluorescent substance coated on each surface of said plates of glass.

9. A structure of a field emission electrode adapted to be used for a cold cathode fluorescent flat lamp, comprising:

an anode;

a cathode being parallel to said anode; and

an auxiliary anode disposed between said anode and said cathode and being parallel to said cathode, wherein said auxiliary anode is attached to a surface of a chamber of said cold cathode fluorescent flat lamp.

10. The structure according to claim 9 wherein said anode is made of nickel.

11. The structure according to claim 9 wherein said cathode is made of nickel.

12. The structure according to claim 9 wherein said auxiliary anode is made of a material selected from a group consisting of copper, nickel, and aluminum.

13. A cold cathode fluorescent flat lamp, comprising:

an enclosure chamber sealed by two reciprocally parallel plates of glass and containing a gas therein;

an anode disposed in said enclosure chamber;

a cathode disposed in said enclosure chamber and comprising a main body and two inclined fringes on each end thereof, wherein said main body of said cathode is parallel to said anode; and

a printed circuit board for providing a voltage for said anode and said cathode.

14. The cold cathode fluorescent flat lamp according to claim 13 wherein said anode is made of nickel.
15. The cold cathode fluorescent flat lamp according to claim 13 wherein said cathode is made of nickel.
- 5 16. The cold cathode fluorescent flat lamp according to claim 13 wherein said gas is selected from a group consisting of inert gas, mercury gas, and a mixing gas thereof.
17. The cold cathode fluorescent flat lamp according to claim 16 wherein said inert gas is selected from a group consisting of helium gas, neon gas, argon gas, krypton gas, xenon gas, and a mixing gas thereof.
- 10 18. The cold cathode fluorescent flat lamp according to claim 17 wherein a pressure of gas contained in said enclosure chamber is ranged from 3 to 200 torr.
19. The cold cathode fluorescent flat lamp according to claim 13, further comprising a fluorescent substance coated on each surface of said plates of glass.
- 15 20. The cold cathode fluorescent flat lamp according to claim 13 wherein an inclined angle between said inclined fringe and said main body is ranged from 0° to 90°.